

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

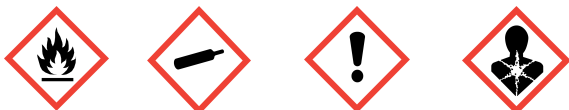
Product ID: 497936
Product Name: ZenaShine Ultra
Revision Date: Dec 07, 2018 **Date Printed:** Dec 07, 2018
Version: 2.0 **Supersedes Date:** Oct 22, 2015
Manufacturer's Name: Zenex International
Address: 1 Zenex Circle Cleveland, OH, US, 44146
Emergency Phone: 1-800-535-5053
Information Phone Number: (440)-232-4155
Fax:
Product/Recommended Uses: Vinyl / Plastic Coating

SECTION 2) HAZARDS IDENTIFICATION

Classification

Aerosols Category 1
Aspiration Hazard - Category 1
Eye Irritation - Category 2B
Gases Under Pressure Compressed Gas
Reproductive Toxicity - Category 2
Skin Irritation - Category 2
Specific Target Organ Toxicity - Repeated Exposure - Category 2
Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3
Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 56.2%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 83.1%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 33.7%

Pictograms



Signal Word

Danger

Hazardous Statements - Physical

H222 - Extremely flammable aerosol
H280 - Contains gas under pressure; may explode if heated

Hazardous Statements - Health

H304 - May be fatal if swallowed and enters airways

H315 + H320 - Causes skin and eye irritation.

H361 - Suspected of damaging fertility or the unborn child.

H373 - May cause damage to organs through prolonged or repeated exposure.

H336 - May cause drowsiness or dizziness

H335 - May cause respiratory irritation

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 - Do not spray on an open flame or other ignition source.

P251 - Do not pierce or burn, even after use.

P271 - Use only outdoors or in a well-ventilated area.

P260 - Do not breathe mist, vapors, or spray.

P264 - Wash hands thoroughly after handling.

Precautionary Statements - Response

P314 - Get medical attention if you feel unwell.

P308 + P313 - IF exposed or concerned: Get medical attention.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P332 + P313 - If skin irritation occurs: Get medical attention.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical attention.

Precautionary Statements - Storage

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P403 + P405 - Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplementary Information

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE: Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000110-54-3	HEXANE	25% - 50%
0000106-97-8	BUTANE	10% - 25%
0000107-83-5	2-METHYL PENTANE	10% - 25%
0000074-98-6	PROPANE	10% - 25%
0000096-14-0	3-METHYL PENTANE	1.0% - 5%
0000079-29-8	2,3-DIMETHYL BUTANE	1.0% - 5%
0000110-82-7	CYCLOHEXANE	1.0% - 3%
0000075-83-2	2,2-DIMETHYL BUTANE	1.0% - 3%
0000287-92-3	CYCLOPENTANE	0.01% - 1.0%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin Contact

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse.

Ingestion

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing media suitable for surrounding fire.

Unsuitable Extinguishing Media

None known.

Specific Hazards in Case of Fire

Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Fire-Fighting Procedures

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Recommended Equipment

Clean up with an absorbent material and place in closed containers for disposal.

Personal Precautions

Wear appropriate protective equipment (see Section 8).

Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SECTION 7) HANDLING AND STORAGE

General

Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Ventilation Requirements

Use in a well-ventilated place.

Storage Room Requirements

Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye Protection

Safety glasses with side shields should be used if indicated. Eye wash and safety showers in the workplace are recommended.

Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

Respiratory Protection

Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
2,2-DIMETHYL BUTANE												
2,3-DIMETHYL BUTANE												
2-METHYL PENTANE												
3-METHYL PENTANE												
BUTANE								800	1900			
CYCLOHEXANE	300	1050			1			300	1050			
CYCLOPENTANE								600	1720			
HEXANE	500	1800			1			50	180			
PROPANE	1000	1800			1			1000	1800			

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
2,2-DIMETHYL BUTANE	500		1000	
2,3-DIMETHYL BUTANE	500		1000	
2-METHYL PENTANE	500		1000	
3-METHYL PENTANE	500		1000	
BUTANE			1000 (EX)	
CYCLOHEXANE	100			
CYCLOPENTANE	600			
HEXANE	50			
PROPANE			Simple asphyxiant (D), explosion hazard (EX)	

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density

5.51 lb/gal

Density VOC	N.A.
% VOC	N.A.

Appearance	Liquid
Odor Threshold	N.A.
Odor Description	N.A.
pH	N.A.
Water Solubility	N.A.
Flammability	Flash point below 73°F/23°C
Vapor Pressure	101.3 kPa (40°C)
Flash Point	-29°F (closed cup)
Viscosity, Kinematic	<20.5 cSt (40°C)
Lower Explosion Level	1%
Upper Explosion Level	9.5%
Vapor Density	1.55 (air = 1)
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	N.A.
High Boiling Point	N.A.
Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	9.1 (butyl acetate = 1)

SECTION 10) STABILITY AND REACTIVITY

Stability

The product is stable under normal storage conditions.

Conditions to Avoid

Keep away from heat, sparks, extreme temperature, flame, other sources of ignition and incompatible materials.

Incompatible Materials

No data available.

Hazardous Reactions/Polymerization

None known.

Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes skin irritation

Serious Eye Damage/Irritation

Causes eye irritation

Carcinogenicity

No data available

Germ Cell Mutagenicity

No data available

Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

Adverse symptoms may include: reduced fetal weight, increase in fetal deaths and skeletal malformations through inhalation, skin contact and ingestion.

Respiratory/Skin Sensitization

No data available

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

May cause respiratory irritation

Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard

May be fatal if swallowed and enters airways

Acute Toxicity

0000110-82-7 CYCLOHEXANE

LD50 (oral, rat): 8-39 mL/kg (6200 to 30400 mg/kg) (3)

LD50 (oral, mouse): 1300 mg/kg (3)

LD50 (dermal, rabbit): Greater than 18000 mg/kg (4)

0000110-54-3 HEXANE

LC50 (male rat): 38500 ppm (4-hour exposure); cited as 77000 ppm (271040 mg/m3) (1-hour exposure) (15)

LC50 (rat): 48000 ppm (4-hour exposure) (16)

LC50 (rat): 73680 ppm (260480 mg/m3) (4-hour exposure) (n-hexane and isomers) (1,3)

LD50 (oral, 14-day old rat): 15840 mg/kg (3)

LD50 (oral, young rat): 32340 mg/kg (3)

LD50 (oral, adult rat): 28700 mg/kg (3,16)

0000106-97-8 BUTANE

LC50 (mouse): 202000 ppm (481000 mg/m3) (4-hour exposure); cited as 680 mg/L (2-hour exposure) (9)

LC50 (rat): 276000 ppm (658000 mg/m3) (4-hour exposure); cited as 658 mg/L (4-hour exposure) (9)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Hexane, acute LC50 2500 µg/L fresh water fish (*Pimephales promelas*) 96 hr

Cyclohexane, acute LC50 4530 µg/L fresh water fish (*Pimephales promelas*) 96 hr

Persistence and Degradability

No data available.

Bio-Accumulative Potential

Hexane, 501.187 BCF, high potential

Cyclohexane, 167 BCF, low potential

Cyclopentane, 70.8 BCF, low potential

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information

UN number: UN1950

Proper shipping name: Aerosols, flammable, (each not exceeding 1 L capacity)

Hazard class: 2.1

Packaging group: NA

Hazardous substance (RQ): No Data Available

Toxic-Inhalation Hazard: No Data Available

Marine Pollutant: No Data Available

Note / Special Provision: LTD QTY

IMDG Information

UN number: UN1950

Proper shipping name: Aerosols, flammable

Hazard class: 2.1

Packaging group: NA

Marine Pollutant: No Data Available

Note / Special Provision: LTD QTY

IATA Information

UN number: UN1950

Hazard class: 2.1

Packaging group: NA

Proper shipping name: Aerosols, flammable

Note / Special Provision: LTD QTY

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000110-54-3	HEXANE	25% - 50%	CERCLA,HAPS,SARA312,VOC,TSCA,ACGIH,CA_Prop65 - California Proposition 65,OSHA
0000106-97-8	BUTANE	10% - 25%	SARA312,VOC,TSCA,ACGIH
0000107-83-5	2-METHYL PENTANE	10% - 25%	SARA312,VOC,TSCA,ACGIH

0000074-98-6	PROPANE	10% - 25%	SARA312,VOC,TSCA,ACGIH,OSHA
0000096-14-0	3-METHYL PENTANE	1.0% - 5%	SARA312,VOC,TSCA,ACGIH
0000079-29-8	2,3-DIMETHYL BUTANE	1.0% - 5%	SARA312,VOC,TSCA,ACGIH
0000110-82-7	CYCLOHEXANE	1.0% - 3%	CERCLA,SARA312,VOC,TSCA,RCRA,ACGIH,OSHA
0000075-83-2	2,2-DIMETHYL BUTANE	1.0% - 3%	SARA312,VOC,TSCA,ACGIH
0000287-92-3	CYCLOPENTANE	0.0% - 1.0%	SARA312,VOC,TSCA,ACGIH

SECTION 16) OTHER INFORMATION

Glossary

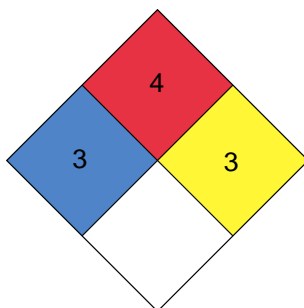
* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases, our system will say UN GHS.

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS

Health	* 3
FLAMMABILITY	4
Physical Hazard	3
Personal Protection	B

NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Version 2.0:

Revision Date: Dec 07, 2018

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